Features

General

- Supplied with **the rotary commander.**
- Supplied with **the wireless remote commander.**
- **Detachable front panel** enables you to take the front panel away with you when you leave your car. (page 16)
- **Caution alarm** will be activated if you turn off the ignition key without removing the front panel from the unit.
- Switchable **two color illumination (amber and green)**. (page 11)
- Proveded with a digital 24-hour clock. (page 17) (AEP, German model only)
- Provided with a digital 12-hour clock. (US model only)
- Line outputs for connecting an optional power amplifier.
- **Telephone-mute function** for decreasing the volume automatically with a telephone call.

Tuner section

- Up to 40 stations can be preset: 20 stations on FM and 10 stations each on MW and LW (SW). (AEP, German model only) (SW for the German model only)
- Up to 30 stations can be preset, 20 stations on FM and 10 stations AM. (US model only)
- BTM (Best Tuning Memory) function Automatically selects and stores the stations with strong signals on the preset number buttons in the order of frequency. (page 29)
- The information services of FM RDS station can be received. (page 32) (AEP, German model only)
- Compatible with the RDS features such as EON (Enhanced Other Networks), AF (Alternative Frequency), TA (Traffic Announcement) and CT (clock Time) function. (page 33) (AEP, German model only)
- Provided with a FM diversity reception system for a better radio reception.

CD section

- **1 bit DAC (Digital-to-Analog Converter) for a clear sound reproduction.**
- **Quick recovery mechanism** for preventing sound skipping.
- **Intro scan function** for playing the first 10 seconds of each track. (page 20)
- **Repeat play function** for listening to a currently playing track repeatedly. (page 21)
- **Shuffle play function** for playing track in a random order. (page 22)
- **Several Sony CD changers (not supplied) can be connected and controlled** by the use of the Sony source selector (not supplied) with the unit.
- **Custom file function*** for displaying the title of each disc and setting a PLAY/SKIP mode on each track. (page 23)
- **Disc scan function*** for playing the first 10 seconds of all the discs. (page 20)

* When the optional CD changer(s) is connected

DSP control section (when the optional Digital Pre-amplifier XDP-U50D is connected)

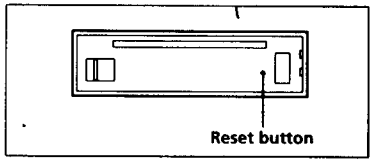
- **Surround menu** enables you to select different soundfields inside your car.
- **DSP custom file function** enables the discs to be played in the customized DSP modes. (page 48)
- **LSM function** enables the programs to be played with the preset surround menu. (page 50)

TV tuner section (when the optional TV monitor and TV tuner unit are connected) (US model only)

- **Station memo function** for displaying the names of TV stations on the TV monitor (page 33).
- **List up function** enables CD titles and the contents of the preset memory to be displayed on the TV monitor (page 28, 35).
- **Simultaneous play function** for listening to CD while watching the TV or video (page 46).

Precautions

- Before operating the unit for the first time or after replacing the car battery, press the reset button with a ball-point pen etc., then start operating the unit.



- If your car was parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the unit to cool off before operating it.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers of a 2-speaker system, set the fader control to the center position.

Note on moisture condensation

On a rainy day or in a very damp environment, moisture in the atmosphere may condense on the lenses inside the unit. Should this occur, the unit may not operate properly. In such a case, remove the disc inside and wait for about an hour or so until the moisture has evaporated.

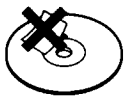
If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Notes on Compact Discs

This way

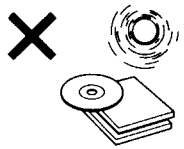
A dirty or defective disc may cause sound dropouts in playing. To enjoy optimum sound, handle the disc as follows.
Handle the disc by its edge, and to keep the disc clean, do not touch the surface.

Not this way



Do not stick paper or tape on the labeled surface.

Not this way



Do not expose the discs to direct sunlight or heat sources such as hot air-ducts, or leave them in a car parked in direct sunlight where there can be a considerable rise in the temperature inside the car.

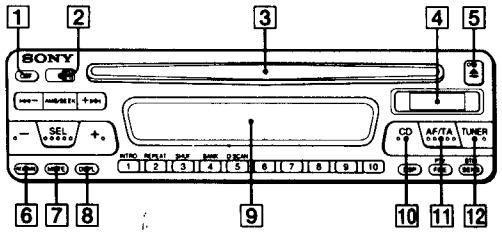
This way

Before playing, clean the discs with an optional cleaning cloth. Wipe each disc from the center of the disc outward.
Do not use solvents such as benzine, thinner, commercially available cleaners or antistatic spray intended for analog discs.

This section is extracted from instruction manual.

Location and Function of Controls

Main unit



Refer to the pages in ● for details.

1 OFF button
Press to turn off the unit.

2 Receptor for the wireless remote commander

3 Disc insertion slot

4 Sub (current mode) display window
Displays the currently selected program source (CD/FM/MW/LW (SW)) and the DSP mode.

5 ⏏ (eject) button ●

6 RELEASE (front panel release) button ●

7 MUTE button
Press to mute the sound momentarily. Press again to restore the same volume level. This button is also canceled in the following cases:
— when the + side of the [−/+] button or the OFF button is pressed.
— when ejecting a CD by pressing the ⏏ button during CD play.
— when the ignition key of your car has been turned to the OFF position for more than eight seconds.

8 DSPL (display mode change/time set) button
Each time the button is pressed, the display on the main display window changes as follows:

AEP, German model only:

CD	Elapsed playback time → Disc title*1 → Clock
Radio*2	Frequency → Clock

US model only:

[redacted]	Elapsed playback time → Disc title* → Clock
[redacted]	Station name* → Frequency → Clock
[redacted]	Channel number → TV station* → Clock

*1 If the title has not being registered, "- - - - - - - -" indication will appear on the display window.
*2 See page 35 about the display modes when the RDS function is in operation.
(AEP, German model only)

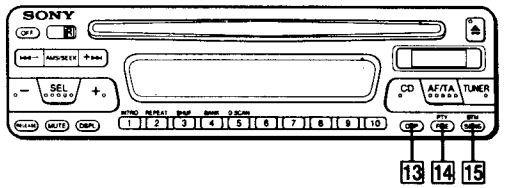
9 Main (Current operation) display window
Displays the information of the currently selected program source, the elapsed playing time of a disc and the current time etc.

10 CD (disc play/CD changer select) button ● ●

11 AF/TA (alternative frequency/traffic announcement) button (AEP, German model only)
Each time the button is pressed, the function changes in order of:
AF → TA → AF/TA → none → AF

11 TV (television/video select) button*1 (US model only)
Each time the button is pressed, the mode changes in order of:
TV (television pictuer) → VIDEO 1 (video pictuer) → VIDEO 2*2 → TV
*1 Only when the potional TV tuner uniat is connected.
*2 Only when the rear TV monitor is connected and the "VIDEO 2" mode is selected.

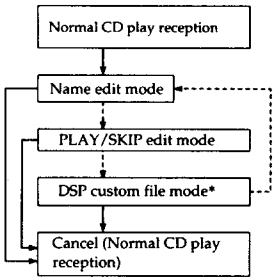
12 TUNER (radio on/band select) button
Each time the button is pressed, the band changes in order of:
(AEP, German model only)
FM1 → FM2 → MW → LW (SW)
(US model only)
FM1 → FM2 → AM → FM1



13 DSP (Digital Signal Processor mode on • off/select) button
If pressed lightly with the optional XDP-U50D connected, this button will function as the DSP mode on/off button. If you press for more than one second, the unit will enter the DSP select/adjust mode. Each time you press the button, the DSP select/adjust mode and the display on the sub display window will change as follows:

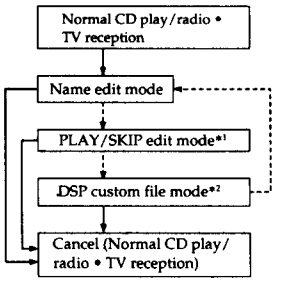
Sub display window	DSP select/adjust mode
SUR	Surround menu select/ Effect level adjust
LP I	Listening position adjustment
SUB	Subwoofer tone/volume adjustment
BAS	Bass adjustment
TRE	Treble adjustment

14 FILE (custom file mode select • set/list up)/PTY (program type) button (AEP, German model only)
Each time the button is pressed, the mode changes as follows:
⟶ : Press the button for more than two seconds.
→ : Press the button lightly.



* The unit enters this mode only when the DSP custom file function is activated.

14 FILE (custom file mode select • set/list up) button (US model only)
Each time the button is pressed, the mode changes as follows:
⟶ : Press the button for more than two seconds.
→ : Press the button lightly.

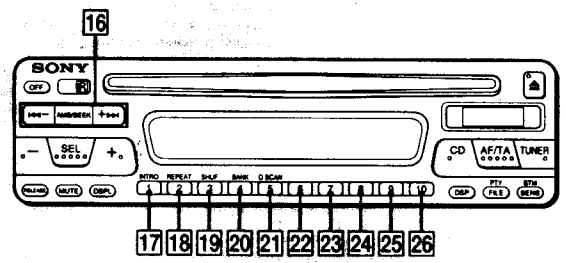

Normal CD play/radio • TV reception
Name edit mode
PLAY/SKIP edit mode*1
DSP custom file mode*2
Cancel (Normal CD play/ radio • TV reception)

*1 The unit enters this mode only when the CD custom file function is activated.
*2 The unit enters this mode only when the DSP custom file function is activated.

If the button is pressed only lightly while the optional TV tuner and monitor are connected, the information of the disc and radio/TV will be displayed on the TV monitor.

15 SENS (sensitivity)/BTM (Best Tuning Memory) button ● ●

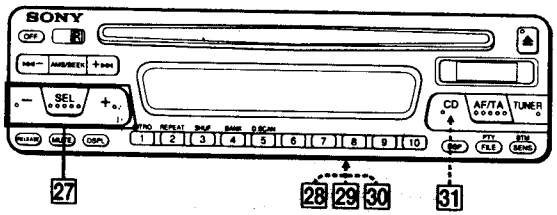
Location and Function of Controls



	During CD play	During Radio reception
16 AMS/SEEK button	**AMS (Automatic Music Sensor) function** + : Press once to locate the beginning of the next track. − : Press once to locate the beginning of the currently playing or a previous track. Press repeatedly to locate previous or succeeding tracks.	**Automatic tuning** ㉕ (Press lightly.)
	Manual seach Keep either side of the button pressed until the desired part of a track is located. + : To fast-forward − : To fast-reverse	**Manual tuning** ㉕ (Press and hold.)

	During CD play	During Radio reception
17 INTRO button (1)	Intro scan ⑱	Preset number buttons ㉗ ㉘
18 REPEAT button (2)	Repeat play ⑲	
19 SHUF button (3)	Shuffle play ⑳	
20 BANK button (4)	Bank play ㉑	
21 D.SCAN button (5)	Disc scan ㉒	
22 (6)	—	
23 (7)	—	
24 (8)	—	
25 (9)	—	
26 (10)	—	

The buttons 17-26 also function as the direct disc selection buttons during CD play.
Press the button whose number corresponds with the desired disc number for more than one second.



27 [−/SEL/+] button

Normally, either side of the [−/+] button is pressed to control the volume. Pressing the SEL button changes the mode as follows:

→ SUB (sub output level) → BAS (bass) → TRE (treble) →
VOL (volume) ← FAD (fader) ← BAL (balance) ←

Press either side of the [−/+] button (to adjust the level) within three seconds, or the volume mode will return.

Sub display window	[SEL] Control mode	[−/+] Press − side	Press + side
SUB	SUB output level control	For less volume	For more volume
BAS	Bass control*1	For less bass	For more bass
TRE	Treble control*1	For less treble	For more treble
BAL	Balance control*2	To decrease the right speaker's volume	To decrease the left speaker's volume
FAD	Fader control*1, 3	To decrease the rearspeaker's volume	To decrease the front speaker's volume
VOL	Volume control	For less volume	For more volume

*1 The level of the SUB output cannot be adjusted.
*2 The level of the SUB output be adjusted as well.
*3 When the optional XDP-U50D is connected, the fader settings can be set separately for the DSP on mode and DSP off mode.
When you use a stereo graphic equalizer (not supplied), set the fader control to the center position and adjust the level with the equalizer.

28 FM DIVERSITY switch (located on the bottom of the unit)
See "FM DIVERSITY Switch" in the installation/connections manual.

29 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT Switch" in the Installation/Connections manual.

30 DIGITAL/ANALOG switch (located on the bottom of the unit)
See "DIGITAL/ANALOG switch" in the Installation/Connections manual.

31 Reset button (located on the front side of the unit hidden by the front panel)
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.

When the positions of switches 28 to 30 have been changed, be sure to press the Reset button after connecting power.

Changing the illumination color

Press the [INTRO 1] button while pressing the [SEL] button. You can choose the color between amber and green.

When listening at low volume with enhanced bass and treble (loudness function)

Press the [REPEAT 2] button while pressing the [SEL] button. To cancel the mode, press these buttons once more. (When the optional XDP-U50D is connected, you cannot use this function.)

Muting the beep tone

Press the [6] button while pressing the [SEL] button. To obtain the beep tone again, press these buttons once more.

Location and Function of Controls

Rotary Commander (RM-X33)

SOURCE selector /VOL (volume) control
- At each pressing, the button changes the source.
- Turn to adjust the volume.

SEEK/AMS control

During CD play

Locates the beginnings of the tracks (AMS function).

During Radio reception

Automatically tunes to a station. When a station is tuned in, the search stops automatically.

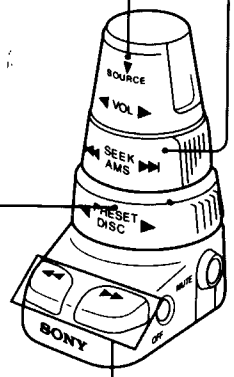
PRESET/DISC control

During CD play

Changes the discs when the CD changer(s) is(are) connected.

During Radio reception

Receives the stations memorized on the preset number buttons. (Preset search function)



◀◀/▶▶ (Manual search buttons)

During CD play

Locates the desired part of a track.

During Radio reception

Manually searches a station.

Press	Turn

When the POWER SELECT switch is set to the OFF position, the unit cannot be operated with the commander, unless you turn on the unit first.

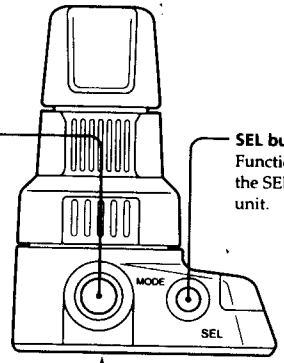
MODE button

During CD play

Selects CD changers when several CD changers are connected.

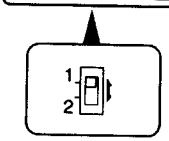
During Radio reception

At each pressing, the button changes the band.



SEL button

Functions in the same way as the SEL button on the main unit.

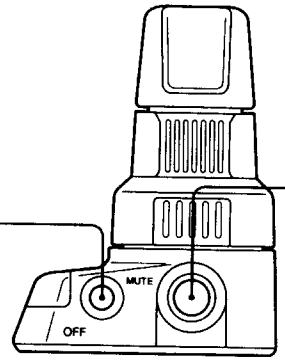


Operational direction switch

If the position of the switch is changed, the operational direction of every control and the ◀◀/▶▶ buttons will be the other way around. Select the position with a jeweller's screw-driver etc.

OFF button

Press to turn off the unit.



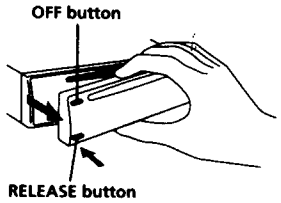
MUTE button

Press to mute the sound momentarily.

Detaching and Attaching the Front Panel

Detaching the Front Panel

Before detaching the front panel, be sure to press the OFF button first. Then press the RELEASE button to open up the front panel and detach the panel by pulling it towards you as illustrated.



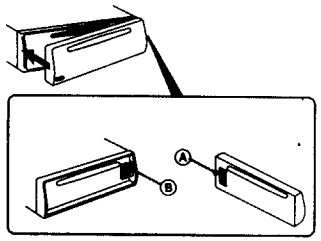
Be sure not to drop the front panel when detaching it from the unit.

Note

The display window may become warm while the unit is operated, however, this is not a sign of a malfunction.

Attaching the Front Panel

Apply the right hand side of the front panel to the unit by attaching the part Ⓐ of the front panel to the part Ⓑ of the unit as illustrated and push until it clicks.



Do not press hard or apply excessive pressure on the display window of the front panel.

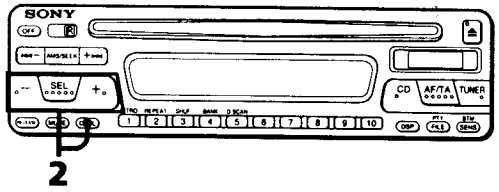
Caution alarm

If you turn the ignition key to the OFF position without removing the front panel, the caution alarm will be activated and a beep tone will be heard for a few seconds (only when the POWER SELECT switch is set to the ON position).

Notes

- Make sure that the front panel is the right way up when attaching it to the unit as it cannot be attached upside down.
- When attaching the front panel, do not press it hard against the unit. It can be easily attached by pressing lightly.
- Never leave the detached front panel in your car if it is parked in direct sunlight. There could be a considerable rise in temperature inside the car.
- When you carry the front panel with you, put it in the supplied front panel case.

Setting the Clock



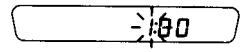
The clock has a 24-hour digital indication.

For example, to set it to 10:08

1 **Turn the ignition key to the ON position.**

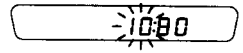
2 **Press the DSPL button for more than two seconds.**

DSPL



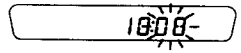
While keeping the DSPL button pressed, proceed with the following:

Press either side of the button to set the hour digits. (to go back) (to go forward)

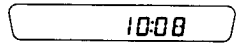


Press the SEL button.

Press either side of the button to set the minute digits. (to go back) (to go forward)



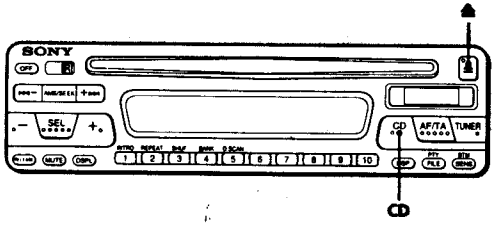
3 **The clock activates when you take your finger off the DSPL button.**



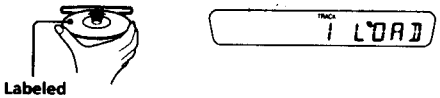
Note

If the POWER SELECT switch on the bottom of the unit is set to the OFF position, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio, or started CD play.

Playing a CD



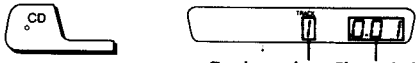
Insert a disc into the slot.



Labeled side up

When a disc is inserted, CD play will automatically start.

If a disc is already inserted, press the CD button.



Track number **Elapsed playing time**

Ejecting the Disc

Press the ⏏ button.

If you press the TUNER button during CD play

The CD play will stop automatically and the tuner will be activated.

Important

Since the CD system offers a wide dynamic range, the peaks of the high level inputs are recorded with high fidelity and the noise level is very low. Do not turn up the volume while listening to a section with no audio signals or very low level inputs. If you do so, the speakers may be damaged when a section with a peak signal is played.

Notes

- If a disc is already loaded in the unit, never try to insert another disc.
- To play a 8 cm CD, use the Sony CSA-8 adaptor (not supplied).

At the end of the disc

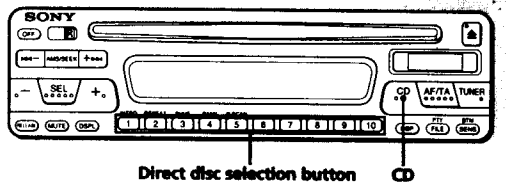
The track number returns to "1" and CD play is repeated from the beginning of the disc.

Note

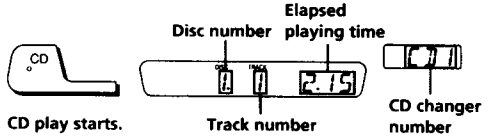
If you leave the ejected disc in the disc insertion slot after you have pressed the ⏏ button, the disc will be automatically retracted into the unit after about 15 seconds in order to protect it.

CD Changer Operation

(With the optional CD changer(s) connected)



Press the CD button.



CD play starts. **Track number**

Locating a Disc Directly

Press the direct disc selection button of your choice for more than two seconds during CD play.

1 — 10

Selecting a CD changer or the CD player (the main unit) to operate

While checking the CD changer/player number indications on the display window, press the CD button. Each time you press the button, the indication changes cyclically as follows:

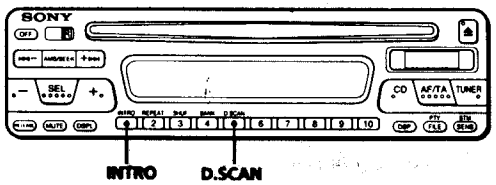
For example, when two CD changers are connected

→ CD1 (CD changer 1) → CD2 (CD changer 2) → CD3 (CD player) →

Notes

- If a disc is not inserted in the CD player (the main unit), you will not be able to select the CD player by pressing this button.
- If more than two CD changers are connected, the number indication for the CD player (the main unit) will always be the last one.

Playing in Other Modes



Listening to the first 10 seconds of each track — Intro Scan Function

Press the INTRO (1) button during CD play by either the CD player or the CD changer.

The first 10 seconds of all the tracks on the currently selected disc will be played in order.
With the optional CD changer(s) connected, after the first disc has been played with the intro scan function, the first 10 seconds of the subsequent disc in the same CD changer will be played.
When the first 10 seconds of the last disc in the first CD changer have been played, the first disc in the next CD changer (if more CD changers than one are connected) or the disc in the CD player (the main unit) will be played with the next number displayed on the display window.

Note
If the INTRO button is pressed during a shuffle play, the first 10 seconds of each track will be played randomly.

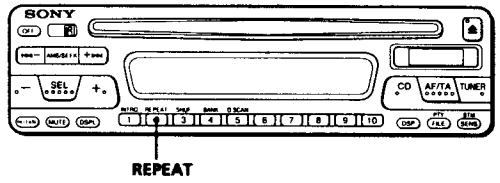
To cancel the intro scan function
Press the INTRO button again.

Searching for a Desired Disc by Listening to the First 10 Seconds of Each Disc
— Disc Scan Function (with the optional CD changer(s) connected)

Press the D.SCAN (5) button during CD play by the CD changer.

The first 10 seconds of all the discs in the CD changers and the CD player will be played in order. When the last disc in the CD changer has been played, the disc in the CD player will be played.
If more CD changers than one are connected, the first disc in the next CD changer or the disc in the CD player (the main unit) will be played with the next number displayed on the display window.

To cancel the disc scan function
Press the D.SCAN button again.



Playing a Disc Repeatedly
— Repeat Play Functions

Playing the currently selected track repeatedly — Track repeat

Press the REPEAT (2) button lightly to get the "REP 1" indication during CD play.

When the track is over, the CD play will be repeated from the beginning of that track.

Playing the currently selected disc repeatedly — Disc repeat (when the optional CD changer(s) are connected)

Press the REPEAT (2) button lightly to get the "REP 2" indication during CD play.

When the last track on the currently selected disc is over, the CD play is repeated from the beginning of that disc.

Playing the discs in the CD changer repeatedly — CD changer repeat (when the optional CD changer(s) are connected)

Press the REPEAT (2) button lightly to get the "REP 3" indication during CD play.

When the last disc in the CD changer has been played, the CD play will be repeated from the first disc in the currently selected CD changer.

The function of the REPEAT button changes cyclically as follows:

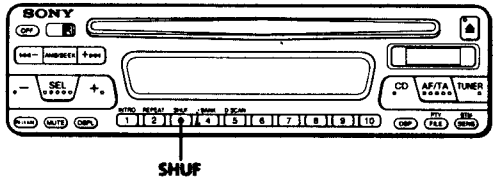
When the CD changer is not connected

REP 1 (Track repeat) → Cancel (Normal CD play mode)

When the CD changer is connected

REP 1 (Track repeat) → REP 2 (Disc repeat) → REP 3 (CD changer repeat) → Cancel (Normal CD play mode)

Playing in Other Modes



Playing the Discs Randomly

— Shuffle Play Functions

Playing the tracks on the currently selected disc randomly — Disc shuffle play

Press the SHUF (3) button lightly to get the "SHUF 1" indication during CD play.

Playing each track on each disc in the currently selected CD changer randomly — CD changer shuffle play (when the optional CD changer(s) are connected)

Press the SHUF (3) button lightly to get the "SHUF 2" indication during CD play.

Playing each track on each disc in all the CD changer(s) connected randomly — All shuffle play (when the optional CD changer(s) are connected)

Press the SHUF (3) button lightly to get the "SHUF 3" indication during CD play.

The function of the SHUF button changes cyclically as follows:

When the CD changer is not connected

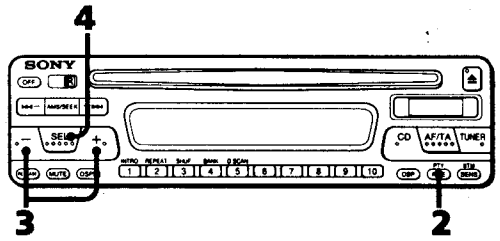
SHUF 1 (Disc shuffle)
↓
Cancel (Normal CD play mode)

When the CD changer is connected

SHUF 1 (Disc shuffle)
↓
SHUF 2 (CD changer shuffle)
↓
SHUF 3 (All shuffle)
↓
Cancel (Normal CD play mode)

Displaying the Title of Each Disc

— Disc Memo Function (with the optional CD changer(s) connected)



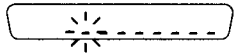
You can put a title of your own choice onto a disc (one title per disc). The title can be displayed on the display window while the disc is being located and played.

Putting Your Personalized Titles onto the Discs

1 **Play the disc that you wish to title.**
(See page 19)

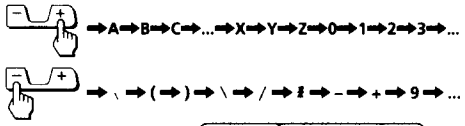
2 **Press the FILE button for more than two seconds to enter the name edit mode.**

FILE



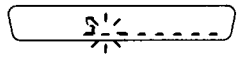
Name edit mode

3 **Press either side of the − / + button to select the desired characters.**
Each time you press either side of the − / + button, characters, symbols etc. change in following order.



4 **Press the SEL button after locating the desired character.**

SEL



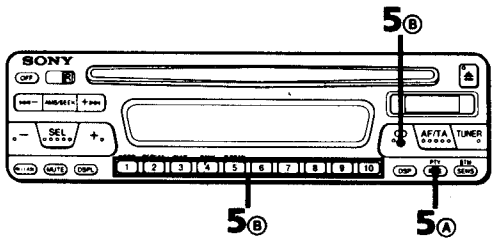
The flashing part moves to the next space on the right. Repeat steps 3 and 4 to enter the entire titles. Up to eight characters can be used per disc.

(Continued on next page)

Note
This function works only when (a) CD changer(s) with custom file feature is (are) connected.

Notes
- If you press the SEL button when the eighth character (farthest right character) is flashing, the flashing part goes back to the first character (farthest left character).
- If you wish to put a blank space after a character, select "_" (under-bar).

Displaying the Title of Each Disc



5 **Ⓐ To return to the normal CD play mode**
Press the FILE button for more than two seconds.

FILE

Ⓑ To continue to put titles onto the discs

CD ○ 1 — 10

(Press for more than one second)

Changing a title

Play the disc whose title you wish to change and repeat steps 2 to 5.

Erasing a title

1 **Select the CD changer and play any disc.**
2 **Press the FILE button for more than two seconds to enter the name edit mode.**
3 **Press the SEL button while pressing the 5 button.**
4 **Press either side of the − / + button to select the title that you wish to erase.**
5 **Press the SEL button for more than two seconds.**
Now the title and the PLAY/SKIP settings are erased. Repeat step 4 and step 5 if necessary.
6 **Press the FILE button for more than two seconds.**
The unit returns to the normal CD play mode.

If you press the CD button, the next CD changer will be selected. (when two or more CD changers are connected)

When you change the title, the PLAY/SKIP settings of the bank function or any setting of the DSP custom file function will not be erased at the same time.

If you erase the title, the PLAY/SKIP settings of the bank function and the settings of the DSP custom file function will be erased as well.

The alternative method to erase a title
You can erase a title by selecting eight "_"s (under-bars) as described in step 3 of "Putting Your Personalized Titles onto the Discs" (page 23).

Displaying the Title

Press the DSPL button.

DSPL → SCHUBERT

Title display modes

While loading the discs, whatever display mode the unit is in, the indication on the main display window automatically changes as follows:

The title of the disc (two seconds) → Disc and track number (two seconds) → Currently selected display mode (two seconds)

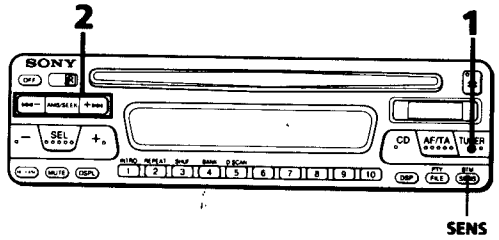
Custom file function

You can register the customized titles and the PLAY/SKIP settings on up to 110 discs* per CD changer (custom file function). These settings are stored in the memory of the CD changer. Therefore, even if you take a custom-filed disc out of the CD changer, you can still use the same custom file function the next time you play that disc in the same CD changer. Furthermore, if your system has several CD changers connected, you can play that disc in another CD changer and still use the same custom file function, provided that the CD changers are inter-connected with the Bus(Unilink) cables.

* If you try to register more than 110 discs, the unit will display the "FULL" indication and will not accept the command for custom-filing. In this case, you will have to erase other discs from the CD changer memory before you enter the new ones (page 24).

Note
While the discs are being loaded inside the CD changer, their registered titles may not appear on the display window immediately.

Tuning in a Station



Searching for the Stations Automatically
— Automatic Tuning

1 **Select the desired band.**

2 **Press either side of the SEEK button lightly.**

For lower frequencies **For higher frequencies**

The scanning stops when a station is received. Press either side of the button repeatedly until the desired station is received.

Tuning in by Adjusting the Frequency
— Manual Tuning

Select the desired band, then press and hold either side of the SEEK button.

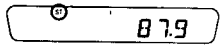
For lower frequencies **For higher frequencies**

Release the button when the desired station is received.

PREVENTING ACCIDENTS!

While you are driving, the use of the Automatic Tuning and the Memory Preset Tuning is recommended instead of the Manual Tuning.

While receiving FM broadcasting



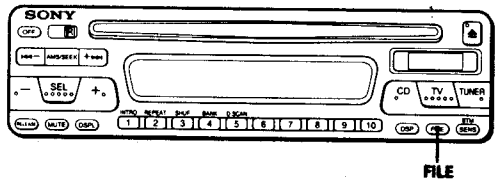
The "ST" indication will appear when an FM stereo program with sufficient signal strength is tuned in. The program will be received in stereo.

Avoiding the automatic tuning from stopping on stations too frequently (Local Seek Mode)
Press the SENS button lightly to get the "LCL" indication. Only the stations with relatively strong signals can be tuned in. The local seek mode functions only when the Automatic Tuning is in operation.

If FM stereo broadcasting is difficult to receive (Monaural Mode)
Press the SENS button lightly to get the "MONO" indication. The sound will improve, but it will become monaural.

Displaying the Stored CD's Information on the TV Monitor *(US model only)*

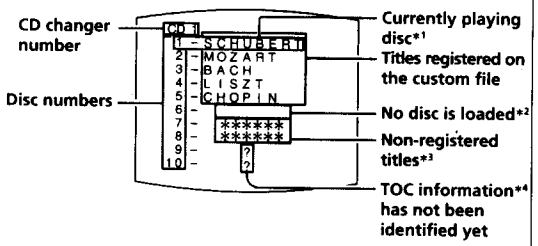
(When the Optional TV Tuner Unit and TV Monitor are Connected)



The titles of the discs loaded and other information stored in the currently selected CD changer on the main unit will be listed on the TV monitor.

Press the FILE button lightly during CD play.

Example: When the CD changer 1 is selected



*1 The name of the currently playing disc will be displayed in magenta.
*2 A blank space will be displayed if there is a disc number representing an empty slot in the disc magazine.
*3 If a title is registered on the custom file, that name will be displayed. If not, "******" will be displayed in its place.
*4 "?" will be displayed if the TOC information of the disc has not been collated with the custom file.

Turning off the display

Press the FILE button once more.

Notes
- It may take some time before all the displays come onto the screen.
- The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode (page 46).

Overview of the RDS Function

(AEP, German model only)

What is RDS?

The RDS (Radio Data System) is a radio digital information system developed and introduced in 1987 by the EBU (European Broadcasting Union). Using the 57 kHz sub-carrier of FM broadcasting, the RDS enables you to receive a variety of information such as station names and traffic information. It also offers some useful functions such as automatic re-tuning of the best available signal carrying the chosen program.

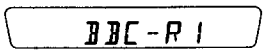
The RDS digital data includes the followings:

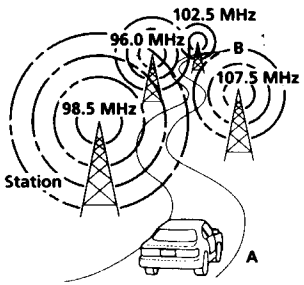
PI	Program Identification
PS	Program Service Name
AF	List of Alternative Frequencies
TP	Traffic Program
TA	Traffic Announcement
PTY	Program Type
EON	Enhanced Other Networks
CT	Clock Time

The following functions are available with this unit using the RDS data. Refer to the marked pages for the operational instructions.

Station Service Name Display *(page 35)*

This function displays the name of the station which is currently tuned in on the main display window.





Automatic Re-tuning — *AF Function (page 36)*

This function automatically re-tunes in a station with a relatively stronger signal within the same broadcasting network using the PI and AF data.
The illustration above shows an example of a car passing through an area with four stations of the same broadcasting network between points A and B.
As the car moves on, the reception frequency of the station in the network changes from 98.5 MHz to 107.5 MHz then to 96.0 MHz and to 102.5 MHz.
By using the AF function, the driver will be able to keep listening to a program in the same broadcasting network without tuning in the station manually every time he enters a different frequency zone between points A and B.

Traffic Announcement Reception

— *TA Function (page 38)*

This function searches and stands by for a traffic information station using the TP and TA data.
Using this function, the unit automatically searches the station and changes its mode to receive the traffic announcement when the broadcasting starts while you are listening to CD play.

Overview of the RDS Function

(AEP, German model only)

Enhanced Other Networks — EON Function (pages 37 and 38)

The EON function extends the faculty of the TA and TP function by enabling the unit to track other stations transmitting the EON data while it is tuned to a network station.

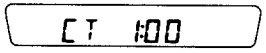
Note

Even if you are listening to a network station, the unit will automatically monitor local EON stations. When there is a local traffic announcement, the unit will automatically tune to that station and will re-tune to the previous station when the broadcast is over.

Setting the Clock Using the CT Function of the RDS

The CT function of the RDS enables the built-in clock in the unit to automatically synchronize with the CT data being received by the tuner section of the unit.

To activate the CT function, press the 7 button while pressing the SEL button. The "CT" indication appears on the display window.



To cancel the function, press these buttons once more.

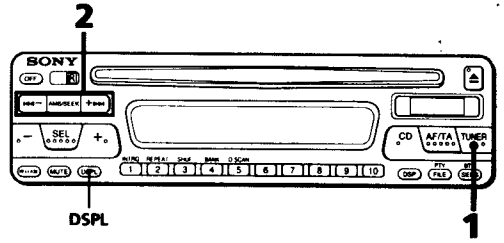
If the CT function is being activated while you adjust the clock manually, the clock will be automatically adjusted by the CT data the next time the unit receives it.

Note

There may be cases when the CT function may not be activated even if an RDS station is being received.

Station Service Name Display

(AEP, German model only)



1 **Select the FM band.**

TUNER

2 **Tune in a desired station by using the Automatic Tuning or Manual Tuning (page 28).**

⏮ AMS/SEEK ⏭

If the unit is set in the station service name display mode and a station transmitting the RDS data is received, the name of that station will be displayed on the main display window.

When the "------" indication appears on the main display window in the station service name display mode:
The received station is not an RDS station.

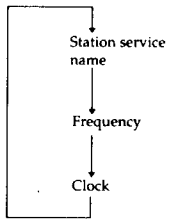
When the unit is in the frequency display mode and an RDS station is received:
The "♯" display appears to indicate that an RDS station is received. To find out the name of the station, press the DSPL button to change the display mode.

Notes

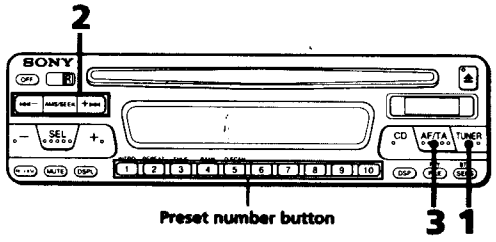
- The RDS data can be received only on the FM band.
- The RDS functions of this unit will not be activated if the FM station being received is not transmitting the RDS data. It may also not work properly in areas where the RDS transmissions are in the experimental stage.

You can change the display mode by pressing the DSPL button

Each time you press the button, the display mode changes as follows:



Automatic Re-tuning — AF Function (AEP, German model only)



1 **Select the FM band.**

TUNER

FM 1

2 **Tune in a desired RDS station by using the Automatic Tuning or Manual Tuning (page 28).**

AMS/SEEK

3 **Press the AF/TA button to get the "AF" indication.**

AF/TA

The unit begins to search for an alternative station with a stronger signal in the same network from the AF data (List of Alternative Frequencies). If a stronger signal station is found, the unit retunes in that station. If no strong station is found, both the "NO AF" and the program station name indications flash.

Notes

- When the "AF" indication appears on the display window, only the RDS stations can be tuned in by the Automatic Tuning.
- If the tuned in RDS station is not transmitting the AF data, this function will not work.
- If you press the AF/TA button while the MW or LW (SW) band is being tuned in, the FM band will be automatically selected.

Selecting REGIONAL ON or REGIONAL OFF

Press the AF/TA button for more than two seconds. The unit gives a confirmation beep. The "REGIONAL ON" or "REGIONAL OFF" indication appears on the main display window. (There may be cases that this function may not be activated in some areas especially in the United Kingdom and outside Germany.)

Regional Programs

Sometimes a national radio network broadcasts regional programs. With the RDS function, you can switch the "regional checking" function to on (REGIONAL ON) or off (REGIONAL OFF).

REGIONAL ON:
The tuner remains tuned to the current regional program.

REGIONAL OFF:
The tuner may retune to another regional program in the network.

Network Stations Memory

When the unit stores an RDS station transmitting the AF data on a preset number button, it stores not only its frequency but also its PI, AF, PS and PTY data. The AF data carries the information of the list of the frequencies of the stations within the same broadcasting network. The unit will store the data in its memory whether the AF function is activated or not.

PI Sorting with the BTM Function

You can automatically store the RDS stations in order of their PI codes on the preset number buttons. If the AF function is activated when you initialize the BTM function (page 29), the RDS stations transmitting the PI data will be searched and stored in order on the preset number buttons. Likewise you can store the traffic information stations in the same way by TA function before activating the BTM function. (See page 38 about the TA function.)

Getting the Stored RDS Stations in Tune from the Broadcasting Networks

Be sure to press the preset number buttons after pressing the AF/TA button to activate the AF function. The AF function will select a better signal station by retuning within the network stations. If you press the preset number buttons without activating the AF function, you will not be able to use this function. In this case, you will only get the individual stations which were tuned in on the previous occasion. The unit will not retune to the other stations in the network even if they are stored in the memory.

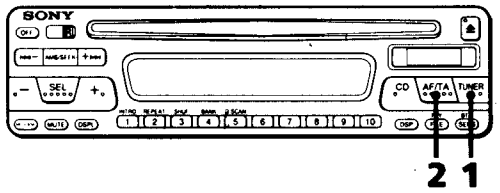
Local Link Function — United Kingdom Only

If you cannot receive the local station which you have previously stored on one of the preset number buttons or if you do not like the currently broadcasted program on the stored local station, you can receive alternative local station(s) by pressing the same preset number button within five seconds of initial reception. If there are several receivable alternative local stations available in the vicinity, press the same preset number button several times until the desired station is received.

RDS Stations Transmitting the EON Data

The EON data incorporates the AF data of other stations as well. Therefore, the unit can update the AF data of the preset stations and these stations will be tuned in the next time the preset number buttons are pressed.

Receiving Traffic Announcements — TA Function (AEP, German model only)



Receiving a Traffic Information Station

1 **Select the FM band.**

TUNER → FM

2 **Press the AF/TA button to get the "TA" indication.**

AF/TA

The search for a traffic information station starts. When an RDS station transmitting the TP data is found, the search stops and the "TP" indication appears on the main display window.

To search another RDS station transmitting traffic announcements
Turn the AMS/SEEK control while the "TA" indication is still on the display window.

If the TA function is activated while the unit is receiving a station which is transmitting the EON data, the "TA", "TP" and "EON" indications will appear on the main display window. In this case, if another station starts broadcasting a traffic announcement, the unit will automatically tune to that station. When the announcement is over, the unit will retune to the previous station.

To cancel the reception of traffic announcements by other stations

Press the AF/TA button until the "AF, TA-OFF" indication appears on the display window.

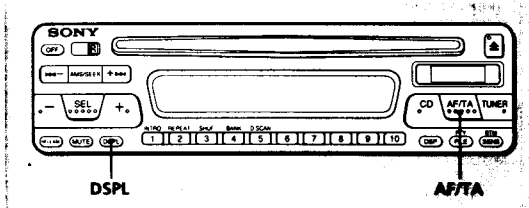
Notes

- Do not activate the TA function in an area where there is no traffic information broadcasting service available. If you do so, the unit will keep searching for it and other stations cannot be tuned in.
- If you activate the TA function while the MW or LW (SW) band is tuned in, the FM1 band will be automatically selected and the unit will start searching for a traffic information station.
- When the traffic information station cannot be received, after the "NO TP" indication flashes for approx. four seconds, the unit will begin to search automatically for a station whose traffic information can be received.

"TA" indication
This indicates that the traffic announcement is on the air.

"TP" indication
This indicates that the currently tuned in RDS station offers a traffic information service.

"EON" indication
This indicates that the unit is receiving the station transmitting the EON data.



Standing by for Traffic Announcements while Listening to a CD

Press the AF/TA button to get the "TA" indication during CD play.

AF/TA

The CD play continues while the unit searches for a traffic information station.

When a station is found:
The "TP" indication appears on the main display window.

↓

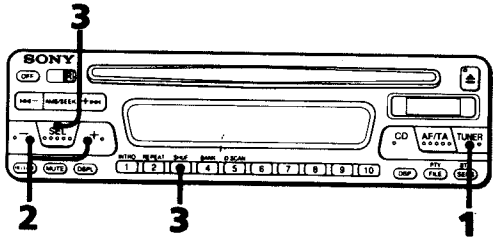
When a traffic announcement starts:
The "TA" indication start flashing. The CD play stop and the traffic announcement is heard.

↓

When the announcement is over:
The CD play resume from where it was left off.

To cancel the stand-by mode
Press the AF/TA button to turn off the "TA" indication.

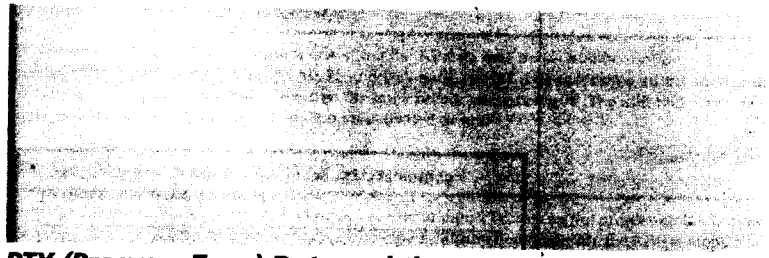
Changing the display to that of the frequency or station name during CD play
Press the DSPL button a few times. While the frequency or station service name is being displayed, the SEEK, ◀◀/▶▶ buttons on the rotary commander and preset number buttons will function in the same way as they do during a radio reception.



Traffic Announcements are Heard at the Preset Volume Level

When a traffic announcement starts, you can hear it at the preset volume level even if the volume control on the front panel has been turned down. (If you are listening to other sources with a higher volume level, the level will not change.) The preset volume level can be set in the following manner:

1 **Select the FM band.**
2 **Adjust the volume to the desired level.**
3 **Press the preset number button 3 while pressing the SEL button.**
A beep tone will be heard when the setting has been completed.



PTY (Program Type) Data and the Emergency Announcement Reception

It is essential that the built-in micro computer has memorized the necessary RDS data in advance.

Press the PTY button to get the "PTY" indication displayed on the sub display window during FM reception.

If an RDS station transmitting the PTY data is received, the name of the PTY data currently being received will be displayed on the main display window. The PTY data names include "NEWS", "AFFAIRS", "INFO" etc. The name and the "PTY" indication will disappear within five seconds.

To receive another station broadcasting the same or different PTY data

Ⓐ If the "PTY" indication is being displayed:
press the AMS/SEEK button.
Ⓑ If the "PTY" indication is not being displayed:
Press the PTY button to get the "PTY" indication displayed, then press the AMS/SEEK button.

In case of an emergency, or in a situation where there may be danger from a natural disaster in the area, the RDS stations will transmit the PTY data information to warn drivers that they are in danger. The emergency data includes the character display and the interruption signal for automatically turning on the radio. **This data can only be received while the AF or TA function is being activated.**
If the unit receives the emergency data from an RDS station CD play, the "AF" indication on the main display window will start flashing and the CD play will stop. The radio will be automatically turned on to receive the emergency announcement from the station.

Notes

- The PTY function may not be activated immediately after the unit is used for the first time. This is because the unit has not yet memorized some of the RDS data necessary to utilize the PTY function. It is also possible that the stations in your vicinity is not transmitting the PTY data.
- With the PTY function on, the unit receives the available PTY data such as: NEWS, AFFAIRS, INFO, SPORT etc. If a specific data is not available during a search, the "NO DATA" indication will be displayed and if there is no PTY data available at all, the "NONE" indication will be displayed on the main display window.

Connections

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**

When the Unit is Used in a Car with No Accessory Position on the Ignition Key

— POWER SELECT Switch

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear **if the unit is used in a car with no accessory position on the ignition key.** To avoid this battery wear when using the unit in such a car, **set the POWER SELECT switch located on the bottom of the unit to the OFF position, then press the reset button.** The illumination is reset to stay off while the unit is not being played.

Note

The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the OFF position.

When an FM Diversity Antenna is Used

— FM DIVERSITY Switch

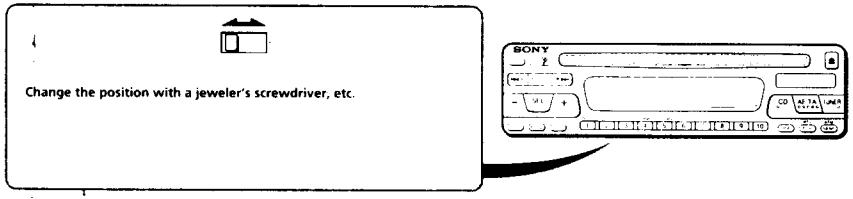
The unit can be connected with diversity antennas. If you use this unit with the diversity antennas, set the FM DIVERSITY switch located at the bottom of the unit to the ON position to activate the diversity system.

When you do not use the FM diversity antennas

If you wish to connect a conventional rod antenna, be sure to connect it to the antenna connector of the unit marked "MAIN", and set the FM DIVERSITY switch to the OFF position. Never connect the antenna to the connector marked "SUB", otherwise if the FM DIVERSITY switch is set to the ON position, the radio signals may not be received properly.

Note

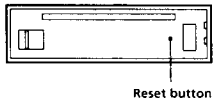
The radio reception will be disturbed by noise if the connection of the antennas was not made properly or the FM DIVERSITY switch was not set correctly.



When you change the position of the switch, be sure to press the reset button after the connections are completed.

Reset Button

When the installation and connections are over, be sure to press the reset button with a ball-point pen etc.



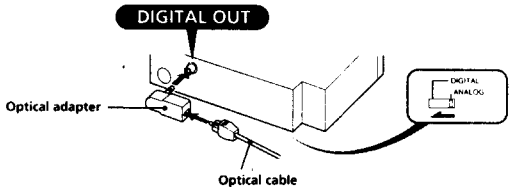
When making a digital Connection

—DIGITAL/ANALOG SWITCH

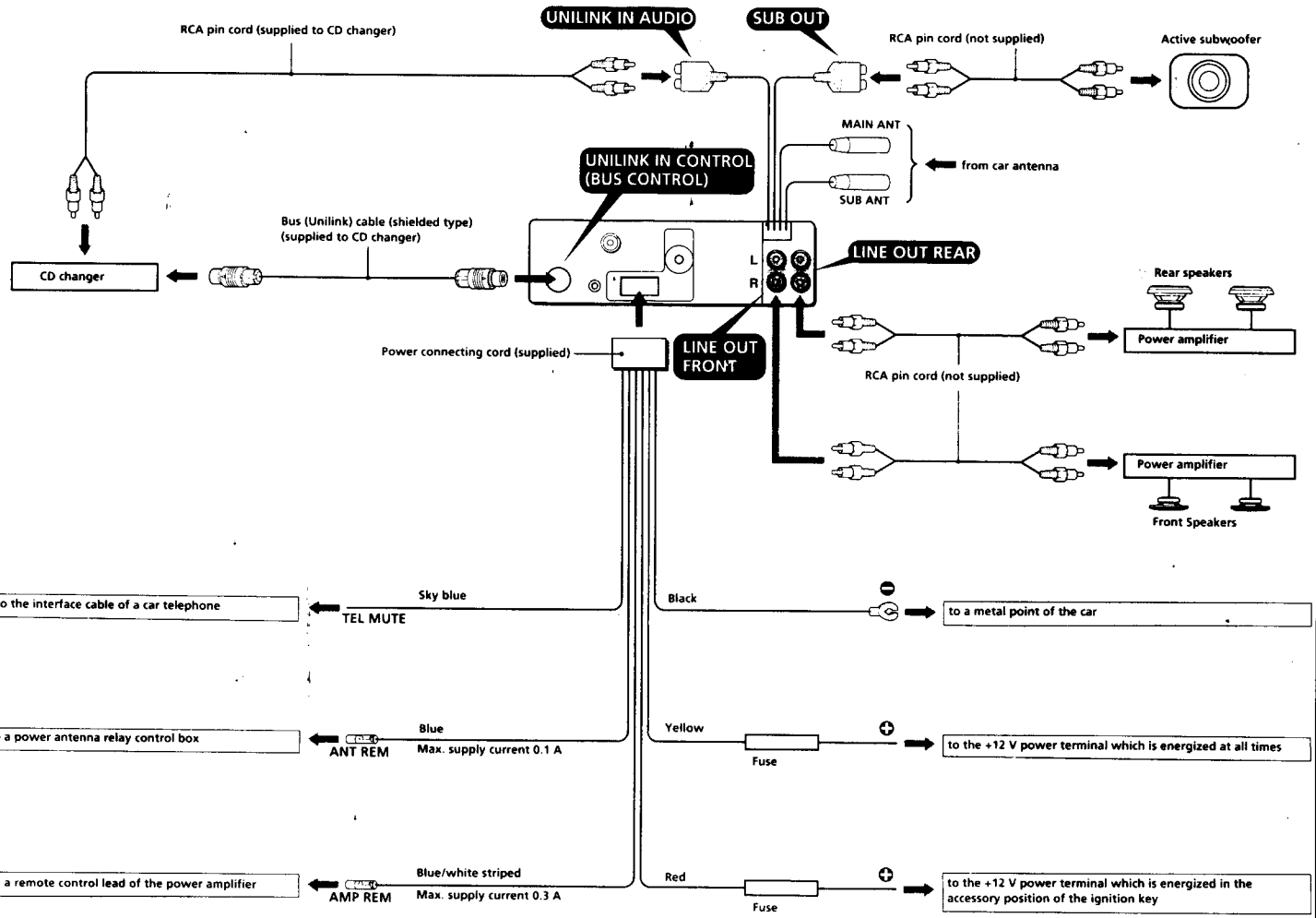
To connect with the XDP-U50D, connect the optical cable (optional) to the optical adapter (optional), and plug the adapter into the special socket on the rear of the unit. Then set the DIGITAL/ANALOG switch to DIGITAL.

Notes:

- The DIGITAL/ANALOG switch is factory-set to ANALOG.
- After changing the switch position, make sure to press one of the RESET buttons.
- If the switch is not correctly set, the unit will work without producing a sound.



Connections



Notes on the control leads

- The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation), AF (Alternative Frequency) or the TA (Traffic Announcement) function.
- A power antenna without relay box cannot be used with this unit.

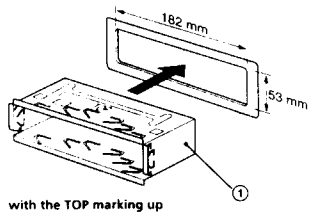
Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

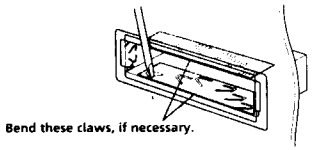
Mounting Example

Installation in the dashboard

1



2



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